DOCUMENT RESUME

ED 083 217 SP 007 414

AUTHOR Stone, James C.; Schwarz, William J.
TITLE The Teaching of Sex Education: An Assessment of Inservice Education.
PUB DATE [72]
NOTE 15p.

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS *Changing Attitudes; Experimental Programs; *Inservice Teacher Education; *Sex Education; Sexuality; Student Attitudes; Student Reaction; *Teacher Attitudes
IDENTIFIERS Elementary Secondary Education Act Title III; ESEA Title III

ABSTRACT

This investigation evaluated the effectiveness of a 3-year project on the teaching of sex education, funded through Title III of the Elementary-Secondary Education Act. The sample included 515 teachers and 1,110 pupils. Teachers and pupils were assigned according to experimental and control conditions. The experimental group of teachers received special in-service training in the teaching of healthy sexuality. In comparing experimental and control group teachers, the findings indicated no significant changes in general teacher personality characteristics; however, they did indicate that special in-service training did bring about significant changes (increases) in the experimental group teachers' knowledge of and attitudes towards teaching sex education. Also, significant differences (increases) were found in the knowledge of healthy sexuality gained by pupils of experimental group teachers, as compared with pupils of control group teachers. (Author/JA)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED 083217

THE TEACHING OF SEX EDUCATION: AN ASSESSMENT OF INSERVICE EDUCATION

James C. Stone and William J. Schwarz

A three-year ESEA Title II Project, in Contra Costa County, California, included an inservice teacher education activity designed to prepare elementary and secondary school teachers to offer instruction in sex education. The authors designed and conducted an evaluative research study to assess the effectiveness of the Project. This article describes the major findings of their investigation and its implications.

The Setting. The $146,387.90 grant for the Project was administered by the Contra Costa Department of Education and the inservice teacher education activities it sponsored were offered to teachers who were employees of the separate and autonomous school districts which looked to the County for special consultative and supplementary services only.

The Project was instituted at what turned out to be the most inopportune time to promote the teaching of sex education in the public schools. The three years of the Project's duration were a time of tremendous turmoil over the issue of sex education at national, state and local levels, threatening the very existence of the Project from day-to-day and serving as a constant threat to the informal relationship between the County and the independent school districts on whose cooperation the Project depended.

Five separate and specially planned Sex Education Workshops, similar in overall purpose but with differing emphases in content and organization, were offered during the three-year period for 404 teachers. The 30 hours of instruction yielded two semester units of college credit.

SP 007 414

FILMED FROM BEST AVAILABLE COPY

The Sample. A total of 515 teachers and 1,110 students were the subjects of this investigation, as shown in Table 1.

TABLE 1 - SAMPLE

Training Workshops Programs	Number of Teachers			Number of Students		
	Total	In the Experimental Group	In the Control Group	Total	In the Experimental Group	In the Control Group
I	114	70	44			
II	80	80	0			
III	77	50	27	569	450	119
IV	139	99	40	335	335	0
V	105	105	0	206	125	81
Total	515	404	111	1,110	910	200

Using an extensive demographic questionnaire and Chi-square tests of homogeniety to test the statistical significance of comparisons among groups, it was found that there were no significant differences among the subjects on such biodata variables as personal and family background, academic and professional training, and teaching experience.

Assumptions. A major assumption of the investigation was that inservice teacher training does have impact; i.e., teacher do change, that these changes can be adquately measured by pre- and post-testing the teachers and their students, and that these changes are most apparent in the knowledge and skill domains but also may occur in the personality and attitude domains.

Thus a basic question to which the study addressed itself is: Does teacher training train teachers?

Design. The research design initially included three independent (assigned) and three dependent (assessed) variables, as follows:

Independent Variables	Dependent Variables
1. School level (elementary, secondary)	1. Personality Characteristics
2. Community setting (urban, rural)	2. Attitude toward sex education
3. Experimental condition (training group, control group)	3. Knowledge of sex education

Since no significant differences in measures of the three dependent variables were found between the levels of the first two independent variables, school level and community setting, these two factors were dropped from the research design after the second year of the project.

Method. Fourteen instruments were used to gather data on the dependent variables, seven of which were standardized and seven of which were developed by the evaluation team and first used in a doctoral research study.[1] These included the following standardized instruments:

Blansfield and Lippett Personal Growth Inventory (PGI)
Gordon Personality Inventory and Personality Profile (GPI and GPP)
McHugh Sex Knowledge Inventory (MSKI)
Mooney Problems Check List (MPCL)
Omnibus Personality Inventory (OPI)
Weichmann Family Life Attitude and Knowledge Inventory (FLAKI)

and also the following especially designed instruments:

Demographic Questionnaire (DQ)
Family Life Attitude Inventory (FLAI)
Family Life Education Q-Sort (FLEQ-S)
Family Life Knowledge Inventory (FLKI)(Grades 5-6, 7-8, and 10-12)
Family Life Education Evaluation - Teacher Questionnaire (FLEE-TQ)
Family Life Education Evaluation - Student Questionnaire (FLEE-SQ)
Student Evaluation of the Family Life Education Program (SEFLEP)

---

(1) Jerry McCarn. In-Service Teacher Training: An Evaluation. Unpublished doctoral (Ph.D.) dissertation, University of California, Berkeley, 1969.

The statistical design was multivariate analysis of variance in mean scores on the dependent variables, using the MULTIVARIANCE program.[2] The Family Life Education Q-Sort responses were cluster analyzed by the BCTRY System of computer programs.[3]

Findings

Personality Characteristics: One set of dependent variables studied was the dimension of personality characteristics. Will the special inservice teacher training in sex education bring about significant changes in the personality characteristics of the teachers in the experimental group? The answer was "No," whether measured by the Omnibus Personality Inventory, the Gordon Personality Inventory and Personality Profile, or the Gordon Survey of Interpersonal Values. An illustration of this finding, using OPI data, is shown in Figure 1.

Attitudes Toward Sex Education: Another set of dependent variables studied was the dimension of attitudes toward sex education. Will the special inservice teacher training bring about changes in the experimental teachers' attitudes toward sex education as a school subject which they would be expected to teach? The answer was "Yes," whether measured by the Family Life Education Q-Sort, the Weichmann Family Life Attitude and Knowledge Inventory, or the Family Life Education Evaluation - Teacher Questionnaire.

---

(2) Jeremy D. Finn. MULTIVARIANCE: Univariate and Multivariate Analysis of Variance, Covariance, and Regression: A Fortran IV Program, Version V, March, 1972. (Ann Arbor, Michigan: National Educational Resources, Inc., 1972)

(3) Robert C. Tryon and Daniel E. Bailed. CLUSTER ANALYSIS. (New York: McGraw-Hill Book Company, 1970)

An illustration of this finding, using cluster analysis of Family Life Education Q-Sort responses, appears in Table 2.

It was also considered important to learn the point of view of teachers regarding adding yet another subject to the school's already crowded curriculum, especially one as controversial as sex education. The data show that both the experimental and the control groups of teachers were agreed on the importance of teaching sex education in the schools. Neither group had to be sold on either the relevance of the subject or the school's responsibility for offering adequate instruction in it. No signigicant differences between the comparison groups were found in their responses to the Family Life Attitude Inventory, either on the pretest or on the posttest.

Knowledge of Sex Education: A third set of dependent variables studied was the dimension of knowledge of sex education. Will the special inservice training bring about an increase in the experimental teachers' knowledge and understanding of sex education as a school subject which they would be expected to teach? The investigators speculated that an increase was likely to occur even though the chief purpose of the special workshops was to change attitudes rather than knowledge. For it was expected that the teachers would be exposed to some new knowledge in the workshops and that they might be learning new content when they prepared to teach units or courses in sex education. The answer was "Yes." There were statistically significant gains in knowledge and understanding of sex education by the experimental group of teachers, as measured by McHugh's Sex Knowledge Inventory, as shown in Tables 3 and 4. This finding was confirmed by analysis of scores on the Weichmann Family Life Attitude and Knowledge Inventory.

To summarize, changes were hypothesized in three sets of dependent variables: personality characteristics, attitudes toward sex education, and knowledge of sex education. In two of the three dimensions, attitudes and knowledge, statistically significant changes (gains) were found; in the third, personality characteristics, none were found.

The single most important finding regarding the impact of the special inservice teacher training workshops was that statistically significant gains were found among pupils of experimental group teachers, who achieved high mean scores than pupils of control group teachers on a measure of their knowledge of healthy sexuality, the Family Life Knowledge Inventory. The greatest gain was achieved by experimental group pupils whose IQ's were one standard deviation below the mean IQ for pupil subjects, as shown in Figure 2.

Implications

Research evaluation of curricular experiences based solely on analysis of hard data poses difficulties for the investigator who conducts a study of the impact of an inservice teacher training program. One obstacle has to do with finding and/or developing appropriate standardized instruments. Another difficulty is the inability to complete the study as planned because of the politics of the subject matter or the school district. To this obstacle, in the teaching of a controversial subject matter like sex education in independent and autonomous school settings, must be added the increasing present-day rebellion of both teachers and students to <u>any</u> form of standardized testing.

From their experience of evaluating Project Number 5134 over a three-year period, the investigators suggest that, from a methodological point of view, <u>there is another way to go</u>. This "new" way is the use of experts in

evaluative research as consultants to groups of elementary and secondary school teachers so that the teachers themselves can carry out their own research and evaluation activities and thus measure the results of their own inservice training and its impact on themselves and their students.

There is an obvious larger implication here--teachers themselves need to have training in research methods so they can evaluate the results of teacher education on themselves, their colleagues, their schools, and their students. As long as school staffs see university or college researchers as outsiders, they will continue to be reluctant to serve as willing subjects themselves, and they will continue to resist the use of their students as subjects as well. This is but another reason[4] why teacher education needs to be carried on in the public schools so that college and university faculties and local elementary and secondary school faculties can be seen as collaborators and colleagues working together for a common cause.

At a conference on reconciling the needs of youth and the requirements of a scholarly community, Sanford made the point similarly when he said:

> Many people nowadays are asking how do we implement some of the good ideas for improving higher education? How do we "innovate" in our colleges and universities? I think I have given one answer. The agent of change is in the process of inquiry. We do not conduct surveys, report our findings, and expect somebody else to apply them; we recognize that studies of students, properly conducted, are "interventions in the system," and we guide the process of change thus begun in ways that will benefit all concerned.

---

(4) For other reasons see James C. Stone, Teachers for the Disadvantaged, Chapter 6, (San Francisco: Jossey-Bass, 1969); Committee for Economic Development, Report #33, Resources for Urban Schools, Chapter 3; and B. O. Smith (Ed.), Teachers for the Real World, (Washington, D.C.: American Association of Colleges for Teacher Education, 1969).

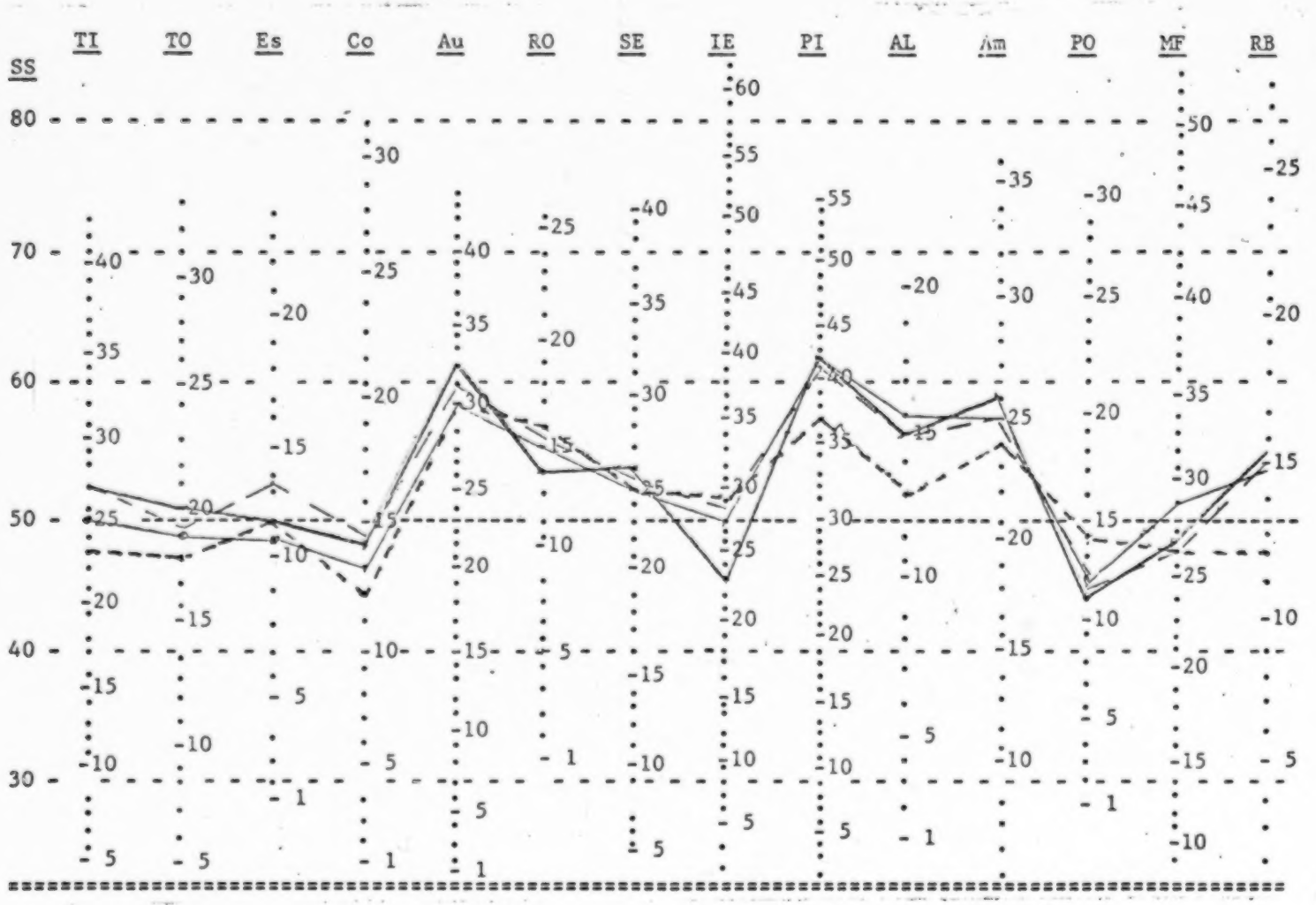
> Our chairman has asked how we can reconcile the needs of a scholarly community with the needs of developing young people. My suggestion is that we begin by bringing together what has long been separated: research, teaching, and action.5

Sanford's remarks are relevant to what we have said about the effects of research conducted by experts, who report their findings and expect somebody else to apply them, compared with the possible outcomes of research, teaching, and action carried out by teachers themselves, whether in school or college. Our research to evaluate inservice teacher training in sex education was an "intervention in the system," and no doubt had effects on both teachers and students. Probably the effects would have been more beneficial if the research had been conducted by the teachers and the students themselves, if, that is, the teachers and students had been trained and assisted to plan and conduct their own research on the effectiveness of their training and their teaching.

---

(5) Nevitt Sanford, "Personality Growth and the Failure of Higher Education," 76th Annual Conference, American Psychological Association, San Francisco, California, September 2, 1968.

Figure 1. OPI Pre and Post-test Mean Score Profiles of Experimental and Control Teachers



Key: —— Experimental Teachers Pre-test
----- Control Teachers Pre-test
—— Experimental Teachers Post-test
----- Control Teachers Post-test

TABLE 2 - CLUSTER ANALYSIS OF FAMILY LIFE EDUCATION Q-SORT RESPONSES

Cluster 1 - Evaluation of the Workshop's Program and Operation

Item No.	Item Statement	Factor Coeff.
56	A better project would have resulted if participants had had a bigger part in its planning.	.84
43	A better project would have resulted if participants had made more of the decisions about its day-to-day operations.	.64
45	This project's format should be changed.	.54
47	The leaders of this project put too much emphasis on dispensing information and not enough on getting us to explore our feelings.	.44

High scorers on this dimension are critical of the workshop's program and operation, judging that they would have been better if participants had had a bigger part in planning and in making decisions that would have resulted in a different format, one that put less emphasis on dispensing information and more on getting participatns to explore their feelings.

Cluster 2 - Assessment of Gains in the Participants' Knowledge and Understanding

Item No.	Item Statement	Factor Coeff.
49	This project contributed little to my awareness of the problems that confront the youth of today.	.77
52	This project made me only slightly more aware of the moral and ethical aspects of teaching family life education.	.64
51	I learned very little from the project about the effects of a home environment upon a student's sexual conduct.	.57
54	This project did little to increase my awareness of the resource materials available for family life education.	.55

TABLE 2, Cluster 2 (Continued)

High scorers on this dimension judged that their participation in the workshop had contributed little to their awareness of the problems that confront today's youth, of the moral and ethical aspects of teaching family life education, of the effects of a home environment upon sexual conduct, and of resource materials for teaching family life education.

Cluster 3 - Evaluation of the Workshop's Instructional Materials

Item No.	Item Statement	Factor Coeff.
1	The material on human growth and development was valuable.	.74
2	The material on human reporduction was valuable.	.70
25	The films, records, tapes, etc. were valuable.	.61
36	The special instructional materials for family life education were valuable.	.55

High scorers on this dimensions judged the workshop's special instructional materials to have been valuable, particularly those on human growth and development and those on human reproduction.

Cluster 4 - Evaluation of the Workshop's Instructors

Item No.	Item Statement	Factor Coeff.
7	I learned more from my fellow participants than I did from the leaders and other experts who spoke to us.	.55
46	Project instructors covered the material too quickly.	.52

High scorers on this dimension judged that the workshop's instructors had covered the materials too quickly and so were not as helpful as fellow participants had been.

TABLE 2, (Continued)

Cluster 5. - Evaluation of the Workshop's Small-Group Activities

Item No.	Item Statement	Factor Coeff.
31	Working together in small groups was important to me.	.76
17	The small-group work sessions were helpful to me.	.74

High scorers on this dimension judged that the workshop's small-group activities had been important and helpful to them.

Table 3

McHugh's Sex Knowledge Inventory Pre-Test:
Analysis of Variance Data

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F
UR	1	67.19	67.19	1.43
SL	1	4.47	4.47	.09
EC	1	116.11	116.11	2.46
UR X SL	1	.62	.62	.01
UR X EC	1	4.72	4.72	.10
SL X EC	1	3.93	3.93	.08
URXSLXEC	1	.67	.67	.01
Error	69	3248.43	47.08	---
Total	76	3446.14		

$F_{1,69(.995)} = 8.41$

UR Urban-Rural

SL School Level: Elementary or Secondary

EC Experimental Condition

Table 4

McHugh's Sex Knowledge Inventory Post-Test:
Analysis of Variance Data

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F
UR	1	1.17	1.17	.05
SL	1	6.89	6.89	.30
EC	1	487.59	487.59	21.05
UR X SL	1	4.74	4.74	.20
UR X EC	1	2.82	2.82	.12
SL X EC	1	140.76	140.76	6.08
URXSLXEC	1	2.48	2.48	.11
Error	50	1158.40	23.17	---
Total	57	1804.85		

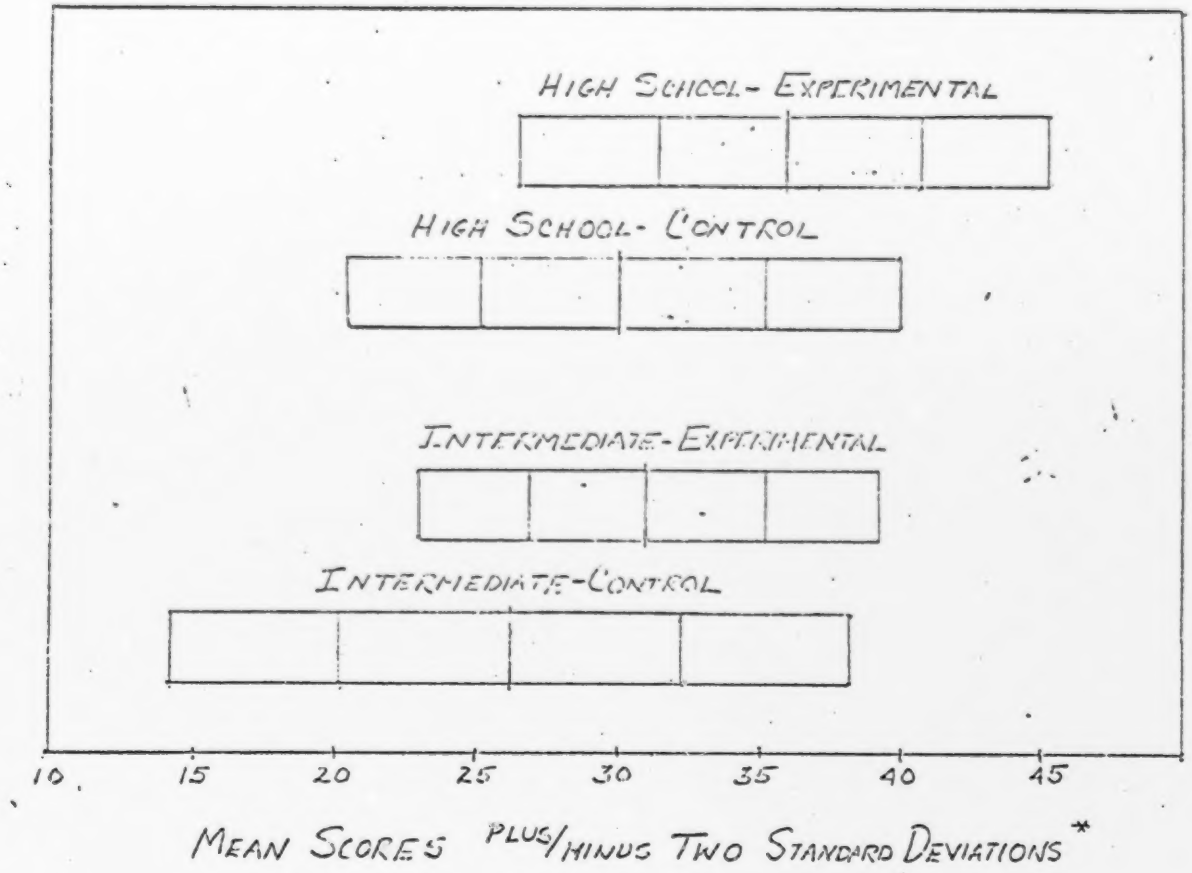
$F_{1,50}$ (.995) = 8.66

UR Urban-Rural

SL School Level: Elementary or Secondary

EC Experimental Condition

Figure 2. Mean Scores of Students on the Family Life Knowledge Inventory



* includes 95% of all scores